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Abstract

This is a method for making layered structures of artificial high-Tc superconductor compounds by which on top of a seed crystal (7) having a lattice structure matching the lattice structure of the superconductor compound to be made, oxide layers (4, 5, 6) of all constituent components are epitaxially grown in a predetermined sequence so as to create a sandwich structure not found in natural crystals. The epitaxial deposition of the constituent components is performed in a reaction chamber having evaporation facilities, inlets for metal-organic gases, and inlets for background gases including oxygen.